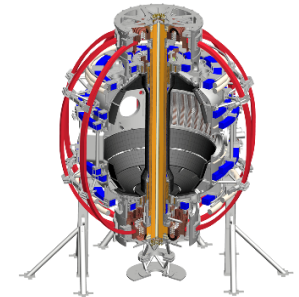




# Brainstorming FWPs FY17 & FY18

Ahmed Diallo  
for Pedestal and Control TSG



# Potential Research Milestones - FY17

- Characterization of the pedestal structure of NSTX-U H-modes
  - There are ~ 80 shots exhibiting L-H transitions (Thanks to Battaglia). Not all of them are ELMy.
  - Can in principle fit the pedestal to determine its structure []
  - But without available Ti data, it will be difficult to run kinetic EFIT
  - Stability analysis will be challenging
- Initial look at the turbulence in ELMy regimes using BES
  - Limited data
- Nonlinear simulation of the NSTX ELM dynamics using BOUT++ and M3DC1
  - These tasks are currently being carried out by Smith and Canal

# Potential Research Milestones - FY18

- Impurity transport difference between NSTX and D3D
  - Utilize data from the NSTX-U Campaign @ D3D
  - Not sure if we should consider this?
- Simulation?
- Fluctuations characterization with available NSTX-U L-H-transitions
  - Density fluctuations radial and poloidal characterization across the L-H transition
  - Need further look at the data to see if this can be viable options